

HC MONO

580 - 595 Watt Total Black



Key features

- ✓ Passed IEC 5400 Pa mechanical loading test.
- ✓ The modules can withstand high wind-pressure, snow loads and extreme temperatures.
- ✓ Our high performing modules have an industry low tolerance of $0\pm 5\%$.
- ✓ Our solar cells offer high conversion efficiency to ensure the highest quality.
- ✓ Highest quality with our cells.

Highest quality with our cells.
16MBB Top Con Technology

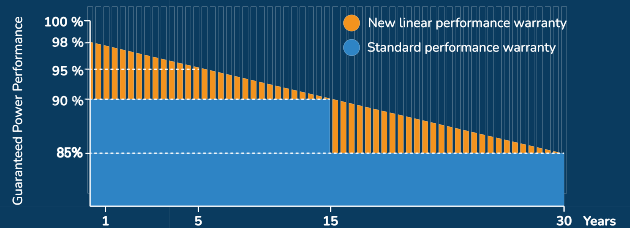


Quality and safety

- ✓ Industry leading power output warranty
15 years / 90%
- 30 years/85.2%
- ✓ 25-year warranty on materials & workmanship
- 🔥 Fire test: Class 1



Premium performance warranty



Applications



On-grid residential roof-tops



On-grid commercial-industrial roof-tops

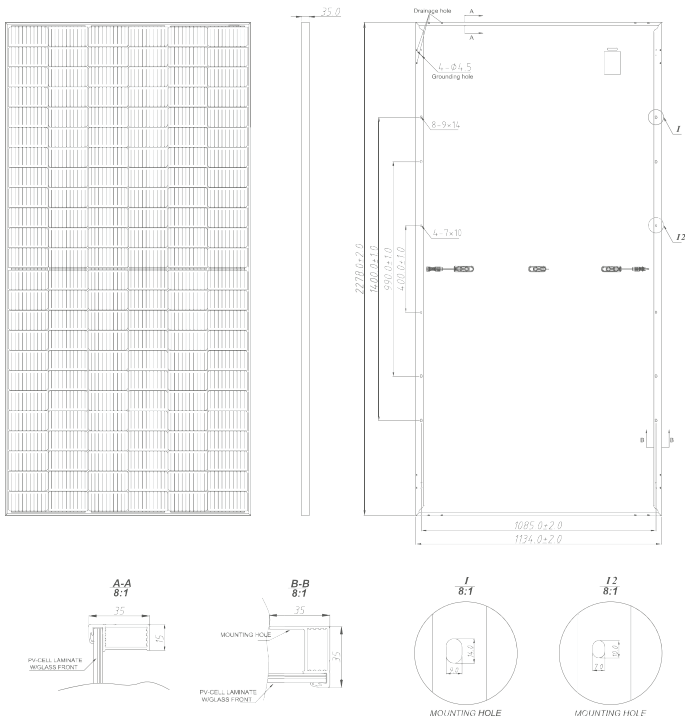


Solar power plants



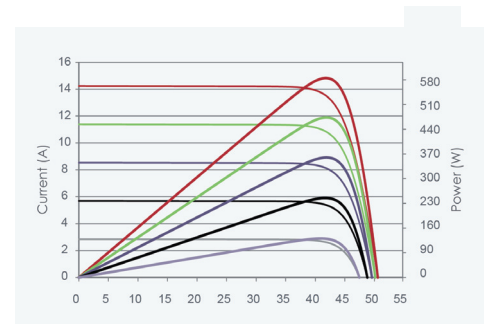
Off-grid systems

Engineering drawings

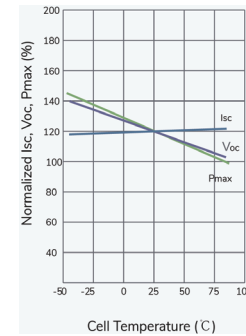


Electrical performance & temperature dependence

Current-Voltage & Power-Voltage Curves (580W)



Temperature Dependence of ISC, Voc, Pmax



Electrical characteristics

Module Type	SNG580M-144	SNG585M-144	SNG590M-144	SNG595M-144
TESTING CONDITION⁽¹⁾	STC⁽²⁾/NMOT⁽³⁾	STC⁽²⁾/NMOT⁽³⁾	STC⁽²⁾/NMOT⁽³⁾	STC⁽²⁾/NMOT⁽³⁾
Maximum Power at STC (Pmax)	580Wp/439Wp	585Wp /443Wp	590Wp/447Wp	595Wp/451Wp
Maximum Power Voltage (Vmp)	43.22V/40.57V	43.41V/40.75V	43.60V/40.92V	43.79V/41.10V
Maximum Power Current (Imp)	13.42A/10.83A	13.48A/10.88A	13.54A/10.93A	13.59A/10.97A
Open-circuit Voltage (Voc)	52.30V/49.96V	52.54V/50.19V	52.77V/50.41V	53.00V/50.63V
Short-circuit Current (Isc)	14.18A/11.45A	14.24A/11.50A	14.30A/11.55A	14.36A/11.59A
Module Efficiency (%)	22.4%	22.6%	22.8%	23.0%
Operating Temperature 0C		-40°C ~ +85°C		
Maximum system voltage		1500V		
Maximum series fuse rating		25A		
Power tolerance		±5%		
Temperature coefficients of Pmax		-0.29%/°C		
Temperature coefficients of Voc		-0.25%/°C		
Temperature coefficients of Isc		0.045%/°C		
Nominal operating cell temperature (NOCT)		45±2°C		

Mechanical data

Cell type	Top Con Technology (182x91mm)
No. of cells	144 (2x72)
Dimensions	2279x1134x35mm
Weight	28.3 kg
Front Glass	Topcon technology
Frame	Anodized Aluminium Alloy Total Black
Junction Box	IP68 Rated
Output Cables	TUV: 1x4.0mm ² UL 12AWG Length: 1100mm or customized length *3-2 mm transmission low iron Ar Coating Glass
Connectors	Copper, Silver Plated, MC 4

Packaging configuration

Dimensions	35mm
No. of pieces per pallet	20
Total number of pallets	31
Module quantity per 40' container	620

(1) Measurement Tolerances: Pmax (+/- 5%), Isc & Voc (+/- 5%) - Power Classification 0/+5%

(2) STC (Standard Testing Condition): Irradiance 1000W/m², Cell Temperature 25°C, AM 1.5

(3) NMOT (Nominal Operating Module Temperature): Irradiance 800W/m², NMOT. Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s

STC/NMOT



Irradiance 1000W/m² / 800W/m²



Module Temperature 25°C



AM = 1.5